AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended)   A method for providing diversity handover, DHO, related instructions to a first DHO tree node, e.g. a Node B, that is a part of or is planned to be a part of a DHO connection in a mobile telecommunication network, wherein the DHO functionality is distributed to one or a plurality of DHO nodes, such as a Radio Network Controller, RNC, and its connected Node Bs, in said network, the method ~~is characterised by the steps of~~comprising:

   - -including in a first signaling message one or more transport layer addresses and one or more transport bearer reference parameters in order to direct one or more data flows of the DHO connection, and

   -sending said first signaling message to the first DHO tree node.

2. (Original) The method according to claim 1, wherein the including-step comprises the further step of:

   -replacing the transport layer address and transport bearer reference parameter of an RNC by the transport layer address and transport bearer reference parameter of a DHO tree node that is hierarchically higher than said first DHO tree node in a regular signaling message sent to the first DHO tree node in order to direct a data flow between said first DHO tree node and said higher DHO tree node in the DHO tree node hierarchy

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3. (Currently Amended) The method according to ~~any of claims~~claim 1-2, wherein

the including-step comprises the further step of:

-including one or more transport layer addresses and one or more transport

bearer reference parameters of one or more DHO tree node(s) that are

hierarchically lower than the first DHO tree node in a signalling message sent to

the first DHO tree node in order to direct one or more data flows between said

first DHO tree node and said one or more lower DHO tree node(s) in the DHO

tree node hierarchy.

4. (Currently Amended) The method according to ~~any of the claims~~claim 1-3,

wherein said transport layer addresses are IP addresses and said transport

bearer reference parameters are UDP ports.

5. (Currently Amended) The method according to ~~any of the claims~~claim 1-3,

wherein said transport layer addresses are ATM addresses and said transport

bearer reference parameters are SUGR parameters.

6. (Currently Amended) The method according to ~~any of claims~~claim 1-5, further

comprising the step of:

-including in the first signaling message Quality of Service (QoS) indications for

the data flow(s) to be directed.

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7. (Currently Amended) The method according to ~~any of claims~~claim 1-6, further comprising the step of:

-including timing parameters in the first signaling message to be used in the uplink combining procedure in the DHO tree node receiving said first signaling message.

8. (Currently Amended) The method according to ~~any of claims~~claim 1-7, further comprising the step of:

-including a time indication in the first signaling message indicating when the DHO related instructions in the first signaling message are to be effectuated in the DHO tree node receiving said first signaling message.

9. (Original) The method according to claim 8, wherein said time indication is a connection frame number, CFN, pertaining to a Dedicated Channel Frame Protocol, DCH FP, in a UMTS Terrestrial Radio Access Network, UTRAN.

10. (Currently Amended) The method according to ~~any of claims~~claim 1-9, wherein said first signaling message is sent from a RNC.

11. (Original) The method according to claim 10, wherein said first signaling message is a Node B Application Part, NBAP, message.

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12. (Currently Amended) The method according to ~~any of claims~~claim 10 ~~or 11~~, wherein the step of sending said first signaling message is triggered by a second signaling message received from a second RNC.

13. (Original) The method according to claim 12, wherein the second signaling message is a RNSAP message.

14. (Currently Amended) The method according to ~~any of claims~~claim 12 ~~or 13~~, wherein the second signaling message includes the same DHO related instructions and associated parameters as said first signaling message.

15. (Original) The method according to claim 14, wherein said second signaling message further comprises a destination node transport layer address of the first DHO tree node that is the intended recipient of said DHO related instructions.

16. (Original) The method according to claim 15, wherein said destination node transport layer address is an IP address.

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17. (Original) The method according to claim 15, wherein said destination node transport layer address is an ATM address.

18. (Currently Amended) The method according to ~~any of the claims~~claim 1~~-17~~, wherein the mobile telecommunication network is a UMTS network.

19. (Currently Amended) The method according to ~~any of claims~~claim 1~~-2~~, wherein the method comprises the further step of:

-using implicit information at the first DHO tree node in data received from a hierarchically lower DHO tree node to trigger the initiation of DHO functionality for a macro diversity leg towards the hierarchically lower DHO tree node, wherein said DHO functionality comprises splitting and combining of data flows.

20. (Original) The method according to claim 19, wherein said implicit information comprises a source IP addresses and a source UDP port retrieved from the IP header and the UDP header of a received uplink packet.

21. (Original) The method according to claim 20, wherein said source IP address is different from the source IP addresses used for packets received from a hierarchically higher DHO tree node and other hierarchically lower DHO tree

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nodes than said hierarchically lower DHO tree node from which said uplink packet was received.

22. (Currently Amended) The method according to ~~any of claims~~claim 20-~~21~~, wherein the method comprises the further step of:

-using said retrieved source IP address and UDP port at the first DHO tree node as the destination IP address and destination UDP port for the split downlink data flow for said macro diversity leg towards said hierarchically lower DHO tree node.

23. (Currently Amended) The method according to ~~any of claims~~claim 1-~~2 and 19-22~~, wherein the method comprises the further step of:

-terminating DHO functionality at the first DHO tree node for a macro diversity leg towards a hierarchically lower DHO tree node based on the absence of expected uplink data packets from the hierarchically lower DHO tree node.

24. (Currently Amended) The method of ~~any of claims~~claim 1-~~2 and 19-22~~, wherein the method comprises the further step of:

-terminating DHO functionality at the first DHO tree node for a macro diversity leg towards a hierarchically lower DHO tree node based on the reception of an indication that said hierarchically lower DHO tree node no longer uses the macro diversity leg.

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25. (Original) The method of claim 24, wherein said indication is a Destination Unreachable Internet Control Message Protocol, ICMP, message.

26. (Currently Amended) A computer program product directly loadable into the internal memory of a computer within a Diversity Handover node such as a Radio Network Controller or a Node B, in a mobile telecommunication network, comprising the software code portions for performing the steps of ~~any of~~ ~~claims~~claim 1-~~25~~.

27. (Currently Amended) A computer program product stored on a computer usable medium, comprising a readable program for causing a computer, within a Diversity Handover node such as a Radio Network Controller or a Node B, in a mobile telecommunication network, to control an execution of the steps of ~~any of~~ ~~the claims~~claim 1-~~25~~.

28. (Currently Amended) A Radio Network Controller, RNC, for providing diversity handover, DHO, related instructions to a first DHO tree node, e.g. a Node B, that is a part of or is planned to be a part of a DHO connection in a mobile telecommunication network, wherein the DHO functionality is distributed to one or a plurality of DHO nodes, such as a Radio Network Controller, RNC, and its connected Node Bs, in said network, the RNC ~~is characterised by~~comprising means for including in a first signaling message one or more transport layer

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addresses and one or more transport bearer reference parameters in order to direct one or more data flows of the DHO connection, and means for sending said first signaling message to the first DHO tree node.

29. (Original) The RNC according to claim 28, wherein the means for including comprises means for replacing the transport layer address and transport bearer reference parameter of an RNC by the transport layer address and transport bearer reference parameter of a DHO tree node that is hierarchically higher than said first DHO tree node in a regular signaling message sent to the first DHO tree node in order to direct a data flow between said first DHO tree node and said higher DHO tree node in the DHO tree node hierarchy.

30. (Currently Amended) The RNC according to ~~any of claims~~claim 28~~-29~~, wherein the means for including comprises means for including one or more transport layer addresses and one or more transport bearer reference parameters of one or more DHO tree node(s) that are hierarchically lower than the first DHO tree node in a signalling message sent to the first DHO tree node in order to direct one or more data flows between said first DHO tree node and said one or more lower DHO tree node(s) in the DHO tree node hierarchy.

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31. (Currently Amended) The RNC according to ~~any of the claims~~claim 28-30, wherein said transport layer addresses are IP addresses and said transport bearer reference parameters are UDP ports.

32. (Currently Amended) The RNC according to ~~any of the claims~~claim 28-30, wherein said transport layer addresses are ATM addresses and said transport bearer reference parameters are SUGR parameters.

33. (Currently Amended) The RNC according to ~~any of claims~~claim 28-32, further comprising means for including in the first signaling message Quality of Service (QoS) indications for the data flow(s) to be directed.

34. (Currently Amended) The RNC according to ~~any of claims~~claim 28-33, further comprising means for including timing parameters in the first signaling message to be used in the uplink combining procedure in the DHO tree node receiving said signaling message.

35. (Currently Amended) The RNC according to ~~any of claims~~claim 28-34, further comprising means for including a time indication in the signaling message indicating when the DHO related instructions in the signalling message are to be effectuated in the DHO tree node receiving said first signaling message.

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36.(Original) The RNC according to claim 35, wherein said time indication is a connection frame number, CFN, pertaining to a Dedicated Channel Frame Protocol, DCH FP, in a UMTS Terrestrial Radio Access Network, UTRAN.

37.(Currently Amended) The RNC according to ~~any of claims~~claim 28-~~37~~, wherein said first signaling message is a Node B Application Part, NBAP, message.

38.(Currently Amended) The RNC according to ~~any of claims~~claim 28-~~37~~, wherein the means for sending said first signaling message is triggered by a second signaling message received from a second RNC.

39.(Original) The RNC according to claim 38, wherein the second signaling message is a RNSAP message.

40.(Currently Amended) The RNC according to ~~any of claims~~claim 38-~~39~~, wherein the second signaling message includes the same DHO related instructions and associated parameters as said first signaling message.

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41. (Original)   The RNC according to claim 40, wherein said second signaling message further comprises a destination node transport layer address of the first DHO tree node that is the intended recipient of said DHO related instructions.

42. (Original)   The RNC according to claim 41, wherein said destination node transport layer address is an IP address.

43. (Original)   The RNC according to claim 41, wherein said destination node transport layer address is an ATM address.

44. (Currently Amended)   The RNC according to ~~any of the claims~~claim 28-43, wherein the mobile telecommunication network is a UMTS network.

45. (Currently Amended) A Diversity Handover, DHO, node, e.g. a Node B, that is a part of or is planned to be a part of a DHO connection in a mobile telecommunication network, wherein the DHO functionality is distributed to one or a plurality of DHO nodes, such as a Radio Network Controller, RNC, and its connected Node Bs, in said network, the DHO node ~~is characterised by~~comprising means for using implicit information in data received from a hierarchically lower DHO tree node to trigger the initiation of DHO functionality

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for a macro diversity leg towards the hierarchically lower DHO tree node, wherein said DHO functionality comprises splitting and combining of data flows.

46. (Original) The DHO node according to claim 45, wherein said implicit information comprises a source IP addresses and a source UDP port retrieved from the IP header and the UDP header of a received uplink packet.

47. (Original) The DHO node according to claim 46, wherein said source IP address is different from the source IP addresses used for packets received from a hierarchically higher DHO tree node and other hierarchically lower DHO tree nodes than said hierarchically lower DHO tree node from which said uplink packet was received.

48. (Currently Amended) The DHO node according to ~~any of claims~~claim 46-47, wherein the DHO node comprises the further means for using said retrieved source IP address and UDP port as the destination IP address and destination UDP port for the split downlink data flow for said macro diversity leg towards said hierarchically lower DHO tree node.

49. (Currently Amended) The DHO node according to ~~any of claims~~claim 45-48, wherein the DHO node comprises the further means for terminating DHO functionality for a macro diversity leg towards a hierarchically lower DHO tree

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node based on the absence of expected uplink data packets from the hierarchically lower DHO tree node.

50. (Currently Amended) The DHO node of ~~any of claims~~claim 45-48, wherein the DHO node comprises the further means for terminating DHO functionality for a macro diversity leg towards a hierarchically lower DHO tree node based on the reception of an indication that said hierarchically lower DHO tree node no longer uses the macro diversity leg.

51. (Original) The DHO node of claim 50, wherein said indication is a Destination Unreachable Internet Control Message Protocol, ICMP, message.

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